



**Lochinvar®**  
High Efficiency Water Heaters, Boilers and Pool Heaters

**ARMOR**  
**Condensing Water Heater**  
**Submittal Sheet**  
**AWP-Sub-08**

## ARMOR™ CONDENSING WATER HEATER PACKAGE SYSTEM

**JOB NAME** \_\_\_\_\_

**LOCATION** \_\_\_\_\_

**ARCH./ENGR.** \_\_\_\_\_

**WHOLESALER** \_\_\_\_\_

**MECH. CONTRACTOR** \_\_\_\_\_

**MODEL NO.** \_\_\_\_\_

**TYPE GAS** \_\_\_\_\_

**Btu/hr INPUT** \_\_\_\_\_

**RECOVERY RATE IN GPH** \_\_\_\_\_ @ \_\_\_\_\_ °F RISE

**NOTES**

### STANDARD FEATURES

- › Up to 98% Thermal Efficiency
- › Modulating Burner with 5:1 Turndown
  - › Direct-Spark Ignition
  - › Low NOx Operation
  - › Sealed Combustion
  - › Low Gas Pressure Operation
- › Vertical & Horizontal Direct-Vent
  - › PVC, CPVC or SS Venting up to 100 Feet
  - › PVC/CPVC Sidewall Vent Termination
- › Stainless Steel Heat Exchanger
  - › All Welded Construction, Gasketless Design
  - › 160 psi Working Pressure
  - › ASME Construction (AW 286-800)
- › Natural to L.P. Conversion Kit
- › All Bronze Circulating Pump
- › On/Off Switch
- › Flow Switch
- › ASME Temperature & Pressure Relief Valve (286-801)
- › Temperature & Pressure Gauge (AW 501-801)
- › Downstream Test Valves (AW 501-801)
- › Adjustable Leveling Legs
- › Tank Sensor
- › Adjustable High Limit w/ Manual Reset
- › Automatic Reset High Limit
- › Condensate Trap
- › Zero Clearances to Combustible Material
- › 5 Year Limited Warranty (See Warranty for Details)
- › 1 Year Parts Warranty (See Warranty for Details)

### SMART SYSTEM FEATURES

- › SMART SYSTEM Digital Operating Control
- › Multi Color Graphic LCD Display
- › Built in Cascading Sequencer for up to 8 Water Heaters
  - › Lead Lag
  - › Efficiency Optimization
- › Building Management System Integration
  - › Modbus Communication (Optional)
  - › 0-10VDC Input to Control Modulation or Set point
  - › 0-10VDC Modulation Rate Output
  - › 0-10VDC Input to Enable/Disable call for heat
  - › Access to BMS Settings Through Graphic LCD Display
  - › Low Water Flow Safety Control & Indication
  - › Inlet & Outlet Temperature Sensors & Readout
  - › Flue Temperature Sensor
  - › Water Heater Pump Control
  - › Pump Delay with Freeze Protection
  - › Pump Exercise
  - › Night Setback
  - › Building Recirculation loop Pump Control\*
  - › Night Setback of Building Recirculation Loop\*
  - › Time Clock
  - › Maintenance Reminder
    - › Ability to program name and number into the product as contact
  - › High Voltage Terminal Strip
    - › 120 VAC / 60 Hertz / 1 Phase Power Supply
    - › Pump Control Contacts
    - › Water Heater Pump Control Contacts
    - › Building Recirculation Pump Control Contacts
  - › Low Voltage Terminal Strip
    - › 24 VAC Auxiliary Device Relay
    - › Auxiliary Proving Switch Contacts
    - › Flow Switch Contacts
    - › Alarm on Any Failure Contacts
    - › Runtime Contacts
    - › Tank Sensor Contacts
    - › Cascade Contacts
    - › 0-10 VDC BMS External Control Contact
    - › 0-10VDC Boiler Rate Output Contacts
    - › Modbus Contacts

### OPTIONAL EQUIPMENT

- › Alarm Bell
- › Condensate Neutralization Kit
- › High & Low Gas Pressure Switches (AW 501-801)
- › Concentric Vent Kit (3" & 4" PVC/CPVC only)
- › ModBus Communications
- › SMART SYSTEM PC Software
- › Room Air Vent Kits
- › Stack Frame

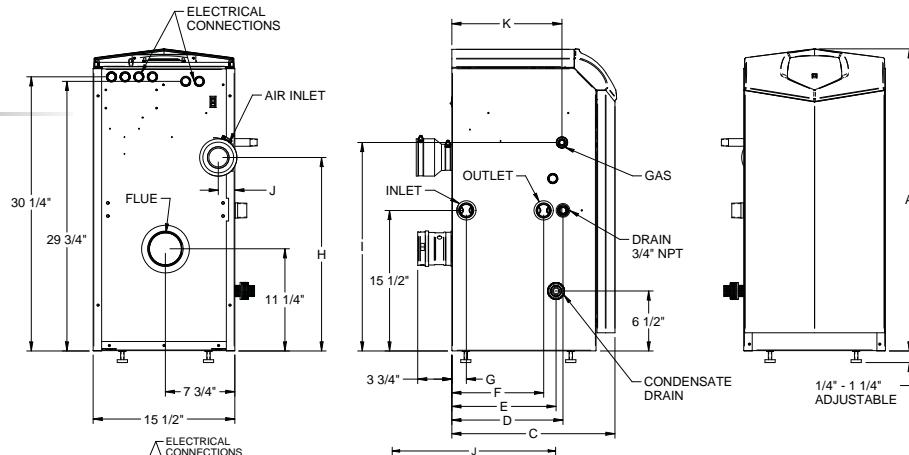
### FIRING CONTROL SYSTEMS

- › M9 Standard Construction
- › M7 California Code (AW 286-801)
- › M13 CSD1 / FM / GE Gap (AW 501-801)

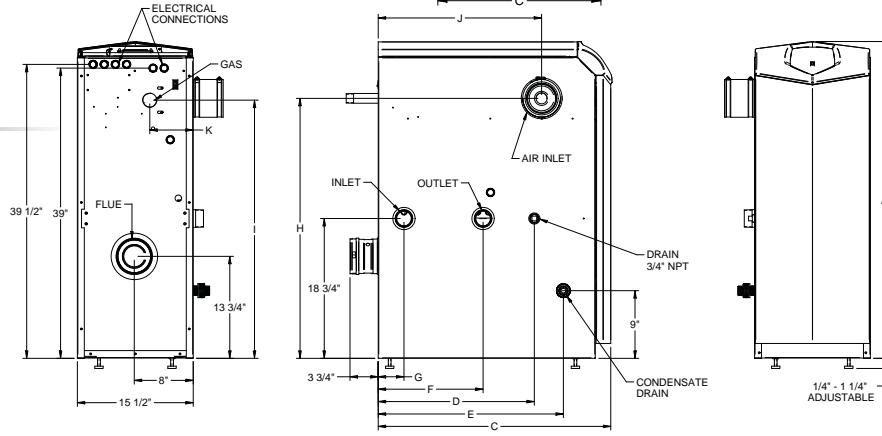
\*Exclusive to Lochinvar

## ARMOR Condensing Water Heater Dimensions & Specifications

### MODELS 150-199



### MODELS 285-800

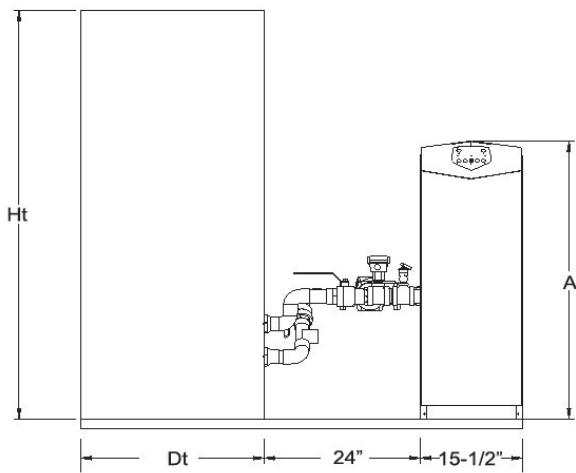
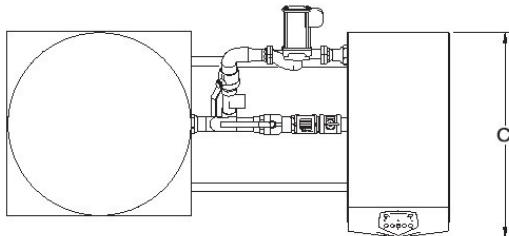


Model Number	Btu/hr Input	GPH @ 100° Rise	A	C	D	E	F	G	H	I	J	K	Gas Conn.	Water Conn.	Air Inlet	Vent Size	Shipping Wt. (lbs.)
AWN151PM	150,000	174	33-1/4"	18"	12-1/4"	11-1/2"	10"	1-1/2"	21-1/4"	23"	1-3/4"	12"	1/2"	1-1/4"	3"	3"	165
AWN200PM	199,999	235	33-1/4"	22-1/4"	16-1/2"	15-3/4"	14-1/4"	5-1/4"	21-1/4"	23"	1-3/4"	16-1/4"	1/2"	1-1/4"	3"	3"	185
AWN286PM	285,000	339	42-1/2"	19-3/4"	12-3/4"	13-1/2"	6"	2"	34"	31"	11-3/4"	4-1/4"	3/4"	2"	4"	4"	235
AWN400PM	399,999	475	42-1/2"	27"	21"	20-3/4"	14"	3-1/2"	34"	34"	18-3/4"	2"	1"	2"	4"	4"	295
AWN501PM	500,000	594	42-1/2"	31-1/2"	21"	25"	14"	3-1/2"	35"	35"	22"	5-3/4"	1"	2"	4"	4"	335
AWN601PM	600,000	713	42-1/2"	36-1/4"	25"	21"	14"	3-1/2"	36"	32-3/4"	19-1/2"	5-1/2"	1"	2"	4"	4"	380
AWN701PM	700,000	832	42-1/2"	40-1/4"	29"	23"	17"	3-1/2"	36"	32-3/4"	23-1/2"	3-1/4"	1"	2"	4"	6"	461
AWN801PM	800,000	950	42-1/2"	45-1/4"	33-1/4"	23"	17"	3-1/2"	36"	32-3/4"	27-3/4"	3-1/4"	1"	2"	4"	6"	527

## Armor Package Systems Gas Water Heater Dimensions & Specifications

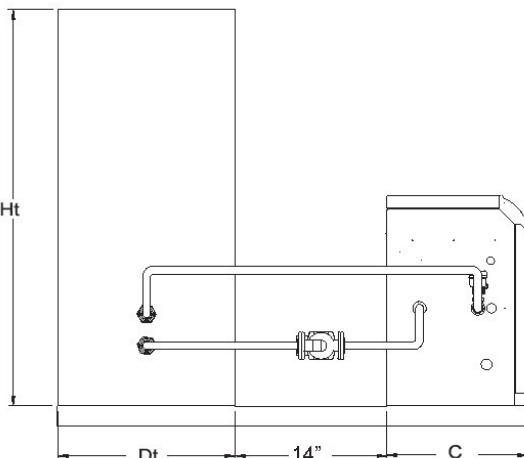
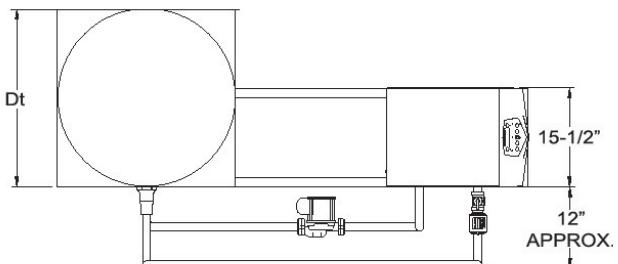
### PS Configuration

AW 150-500 with a 119-504 gallon capacity  
Jacketed and Insulated Lock-Temp Vertical Tank.



### PU Configuration

AW 150-500 with a 119-504 gallon capacity  
Jacketed and Insulated Lock-Temp Vertical Tank.



VERTICAL ROUND JACKETED TANK DIMENSIONS			
Gallon	H <sub>T</sub>	D <sub>T</sub>	Weight
119	62-1/2"	28"	345
200	77-1/4"	32"	600
257	91"	34"	1108
318	80"	40"	1290
432	80"	46"	1,512
504	92"	46"	1,623

**NOTE:** Tanks over 500 gallon are available for package systems. Vertical tanks over 650 gallons require breakaway frames for shipping purposes. Consult factory for details.

Package systems with multiple units or storage tanks 752 gallons and larger will be designed as a "Breakaway" system. Breakaway systems are factory disassembled for shipping purposes and require some field reassembly. Consult factory for details.

**NOTE:** If overall dimensions are critical consult factory.

All package systems are skid mounted.

\*Add 3" to tank H<sub>T</sub> for I-Beam skid.



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